



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,711	09/01/2005	Gilles Orange	1022702-000262	2975
21839 7590 08/19/2009 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
EXAMINER				
ABU ALL, SHUANGYI				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
08/19/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/520,711

Applicant(s)

ORANGE ET AL.

Examiner

SHUANGYI ABU ALI

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31 and 34-61 is/are pending in the application.
- 4a) Of the above claim(s) 56-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31, 34-55 and 61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date 05/06/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 31, 34 - 60 remain for examination wherein claims 31, 34 - 36, 42, 45, 52, and 54 are amended, and claim 56 - 60 are withdrawn. Claim 61 is new.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 31 and 61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no description of mixing water with the composition, which comprises of hydraulic binder, to form the article. The specification discloses that "Generally, the hydraulic binder is mixed with a composition comprising water and additives to form the articles".

The rejection of claims 49-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention stands.

The structure of maleic anhydride has the following structure, which has no COOH group.



The formula (1) has a COOH group.

New-ground Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 31, 35, 37-44 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and "Rheological and physicommechanical properties of heavy concrete with additions of a

melt of carboxylic acid " to Nikiforov, further in view of U. S. patent Publication No. 2002/0077390 to Gonnon et al.

Regarding claims 31, 37-44, Sommer discloses a method of making an article, which has several coatings. The coating has a thickness overlapping with the thickness disclosed by the instant application. One of the coatings is made by hydraulic binder composition (abstract, col. 2, lines 19-68).

But they are silent that the hydraulic binder composition comprises an organic compound as applicants set forth in claim 31.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use organic compound such as carboxylic acid in the hydraulic binder, motivated by the fact that Nikiforov, also drawn to hydraulic binder composition, disclose that the hydraulic binder containing carboxylic acid (such as succinic, glutaric and adipic acid) has improved rheological property and increased strength (abstract).

Combined teaching of Sommer and Nikiforov disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises latex and water as applicant set forth in the instant application.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use latex and water in the hydraulic binder, motivated by the fact that Gonnon et al., also drawn to hydraulic binder, disclose that polymers (latex) made from monomer such as styrene and vinyl acetate with water can be used with

hydraulic binders to improve the mechanical strength of the composition (abstract, claims 27 and 28).

Regarding claim 35, Gonnon et al. disclose that the polymer amount in the composition is adjusted according to the desired compactness ([0117] and examples).

Regarding claim 55, Gonnon et al. disclose that hydraulic binder is calcium sulfate ([0027]).

Claim 31, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and U. S. Patent No. 5,792,252 to Sprouts, further in view of U. S. Patent No. 4,090,882 to Rauschenfels.

Regarding claim 31, Sommer discloses a method of making an article, which has several coatings. The coating has a thickness overlapping with the thickness disclosed by the instant application. One of the coatings is made by hydraulic binder composition (abstract, col. 2, lines 19-68).

But they are silent that the hydraulic binder composition comprises an organic compound.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use organic compound such as carboxylic acid in an additive composition for hydraulic binder, motivated by the fact that Sprouts, also drawn to hydraulic binder composition mixed with water, disclose that the hydraulic binder containing additive composition comprising carboxylic acid has improved workability (abstract).

Combined teaching of Sommer and Sprouts et al. disclose a method of making an article set forth above, but they are silent that the composition comprising fiber.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use glass fiber in the hydraulic binder, motivated by the fact that Rauschenfels, also drawn to hydraulic binder, disclose that hydraulic binder can be structure reinforced by glass fiber (Abstract). In addition, the use of fibers is obvious in order to increase the strength of the resulting product. Rauschenfels disclose that the amount of glass fiber is about 4% (col. 3, line 65-68).

Regarding claims 34 and 36, the amount of the additive composition is in a range of 1-15% based on the weight of the hydraulic binder (col. 2, line 5-line 2).

Claims 45-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer, "Rheological and physicommechanical properties of heavy concrete with additions of a melt of carboxylic acid " to Nikiforov and U. S. patent Publication No. 2002/0077390 to Gonnon et al. as applied to claims 31, further in view of U. S. Patent No. 6,461,425 to Brown et al.

Regarding claims 45-49, and 51, combined teaching of Sommer, Nikiforov and Gonnon et al. disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises a water-soluble amphiphilic copolymer as applicant set forth in claim 45.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use amphiphilic copolymer in the hydraulic binder, motivated by the fact that Brown et al., also drawn to hydraulic binder, disclose that copolymers made from monomer such as ethylene and acrylic acid can be used with hydraulic binders to obtain beneficial effect (Abstract, claim 1, col. 3, line 65-col. 5, line 20; col. 4, lines 54-67).

Regarding claims 50 and 52, Brown et al. disclose that maleic anhydride can be used as monomer. (col. 3, line 65-col. 5, line 20)

Regarding claim 53, the amount of the copolymer used in the composition is about 0.005-0.12% of the hydraulic binder. (col. 6, line 40-44).

Claims 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer, "Rheological and physicommechanical properties of heavy concrete with additions of a melt of carboxylic acid "to Nikiforov and U. S. patent Publication No. 2002/0077390 to Gonnon et al., as applied to claim 31, further in view of U. S. Patent No. 4,090,882 to Rauschenfels.

Regarding claim 54, combined teaching of Sommer, Nikiforov and Gonnon et al. disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises fiber, such as glass fiber, as applicant set forth in claim 54.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use glass fiber in the hydraulic binder, motivated by the fact

that Rauschenfels, also drawn to hydraulic binder, disclose that hydraulic binder can be structure reinforced by glass fiber (Abstract).

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,067,758 to Sommer, in view of U. S. patent No. 5,792,252 to Sprouts.

Regarding claim 61, Sommer discloses a method of making an article, which has several coatings. The coating has a thickness overlapping with the thickness disclosed by the instant application. One of the coatings is made by hydraulic binder composition (abstract, col. 2, lines 19-68).

But they are silent that the hydraulic binder composition comprises an organic compound as applicants set forth in claim 61.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use organic compound such as carboxylic acid in an additive composition for hydraulic binder, motivated by the fact that Sprouts, also drawn to hydraulic binder composition mixed with water, disclose that the hydraulic binder containing additive composition comprising carboxylic acid has improved workability (abstract).

Response to Arguments

Applicant's arguments filed 06/05/2009 have been fully considered but they are not persuasive.

The rejection of claims 31 and 52 under 35 U.S.C. 112, second paragraph dated 01/05/2009 has been withdrawn since the applicant amended the claims.

Applicant argues that mortar is not cement. The Examiner respectfully submits that both mortar and concrete are hydraulic binder. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the cement) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Sommer (primary reference) is silent about component (ii) and (iii). The Examiner respectfully submits that secondary reference discloses the use of composition (ii) and (iii). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Nikiforov disclose of using concrete. The Examiner respectfully submits that concrete is a hydraulic binder.

Applicant argues that Sprout fail to disclose (ii) and (iii). The examiner respectfully submits that carboxylic acid had hydrophilic function and hydrophobic chain.

Applicant argues that Rauchenfrs fail to disclose the composition comprising (ii). The Examiner respectfully submits that the reference is used to show the hydraulic binder composition containing fiber has beneficial result. In response to applicant's arguments against the references individually, one cannot show nonobviousness by

attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Goon fail to disclose (ii). The Examiner respectfully submits that Goon is used to show that the latex can be used in the hydraulic binder composition to provide beneficial result.

Applicant argues that Brown is silent about the composition (ii). The Examiner respectfully submits that Brown et al. is used to show that copolymers made from monomer such as ethylene and acrylic acid can be used with hydraulic binders to obtain beneficial effect

Applicant argues at the combination of the reference will result in introducing material, which will material effect the basic and novel characteristic of the instant composition. The Examiner respectfully submits that the composition of Sommer is only modified by (ii) and (iii).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/520,711
Art Unit: 1793

Page 12

/Shuangyi Abu-Ali/
Examiner, Art Unit 1793

August 14, 2009

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793